		TO THE PROPERTY OF THE PROPERT
1	KILPATRICK TOWNSEND & STOCK	CTON LLP
2	Megan M. Chung (SBN 232044) Email: mchung@kilpatricktownsend.com 12370 High Bluff Drive, Suite 400 San Diego, CA 92130 Telephone: (858) 350 6100 Facsimile: (858) 350-6111	<u>m</u> 2011 FEB 24 PM 3: 53
3	San Diego, CA 92130	CLERK U.S. DISTRICT COURT
4	Facsimile: (858) 350-6111	CENTRAL DIST. OF CALIF. SANTA ANA
5	Attorneys for Plaintiff Genetec Inc.	The second secon
6		No.
7	·	
8	UNITED STATE	S DISTRICT COURT
9		ICT OF CALIFORNIA
10	SOUTHE	RN DIVISION
11		CV 11-01660 PA(MANx)
12	GENETEC INC., a Canadian corporation,	CASE NO.
13	Plaintiff,	COMPLAINT FOR
14	v.	DECLARATORY JUDGMENT OF PATENT NON-INFRINGEMENT AND PATENT INVALIDITY
15	JAMES SIMON, a California resident,	AND PATENT INVALIDITY
16	Defendant.	JURY TRIAL DEMANDED
17		
18	Digintiff Constant In a ("Constant"	harahy allagas as fallayya
19	Plaintiff Genetec Inc. ("Genetec")	•
20		F THE ACTION
21		atory judgment of non-infringement and
22	invalidity of U.S. Patent No. 7,711,150	
23		PARTIES
24		dian corporation having a principal place of
25	business at 2280 Alfred-Nobel Blvd., St	
26	H4S 2A4. Genetec is engaged in the bu	
27	and selling world-class IP security solutions	
28	nition, video surveillance, and access co	ntrol.

COMPLAINT FOR DECLARATORY JUDGMENT

BYFAX

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3. Upon information and belief, Defendant James Simon ("Simon") is a United States citizen and California resident who resides at 8 Estates Drive, Villa Park, California 92861.

JURISDICTION AND VENUE

- 4. This action arises under the Declaratory Judgment Act, 28 U.S.C. §§ 2201 *et seq.*, and under the Patent Laws of the United States, as enacted under Title 35 of the United States Code. This Court has jurisdiction over this action pursuant to 35 U.S.C. §§ 271 *et seq.* and 28 U.S.C. §§ 1331, 1338 and 2201-2202.
- 5. Venue is proper in this Court pursuant to 28 U.S.C. §§ 1391 and 1400(b) because a substantial part of the events giving rise to the claims at issue occurred in this district.
- 6. This Court has personal jurisdiction over Simon by virtue of his residing within the Southern Division of this district and his business and other activities within this district.

SIMON'S PATENTS

- 7. U.S. Patent No. 7,711,150 (the "'150 patent"), which is entitled "Autonomous Wide-Angle License Plate Recognition," issued on May 4, 2010. The '150 patent is attached as Exhibit A.
- 8. U.S. Patent No. 7,881,498 (the "'498 patent"), which is entitled "Autonomous Wide-Angle License Plate Recognition," issued on February 1, 2011. The '498 patent is attached as Exhibit B.
- 9. Simon owns the '150 patent and the '498 patent, which are collectively referred to as the "Simon Patents."

SIMON'S ASSERTION OF THE SIMON PATENTS

10. On or about August 4, 2010, Simon's counsel sent Genetec a letter alleging that Genetec infringed the '150 patent and demanding that Genetec cease and desist from any further use of the allegedly infringing technology in the United States or pay a license for the '150 patent.

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- 11. On or about November 2, 2010, Simon's counsel once again wrote to Genetec alleging that Genetec infringed the '150 patent and requesting that Genetec pay a license for the '150 patent if it wanted to "resolve this matter outside of litigation."
- 12. Simon's November 2 communication to Genetec included a claim chart purporting to compare claim 1 of the '150 patent to Genetec's AutoVu product in order to demonstrate how such product allegedly infringes the '150 patent. Simon's November 2 communication also included a claim chart purporting to compare claim 1 of then-pending published patent application US2010/0195871 (the "'871 application") to Genetec's AutoVu product in order to demonstrate how such product allegedly would infringe the patent that would ultimately issue from the '871 application.
- On December 6, 2010, Genetec sent certain prior art information to 13. Simon's counsel regarding the invalidity of the '150 patent.
- 14. On December 9, 2010, Simon's counsel wrote back to Genetec and asserted that the prior art information previously provided did not anticipate the '150 patent or claim 1 of the '871 application. Simon's counsel asserted that the '871 application provided "even stronger coverage in the allowed claims" than the '150 patent. Simon's counsel further stated that "Genetec's many US customers are clearly not beyond the scope of the courts."
- 15. On December 17, 2010, Simon's counsel again wrote to Genetec. Regarding invalidating prior art, Simon's counsel stated that "But to avoid litigation we need proof of such prior art."
- 16. On or about January 20, 2011, Simon's counsel wrote to a customer of Genetec's, ESI Companies in Memphis, Tennessee ("ESI"). This letter is attached as Exhibit C. With this letter, Simon's counsel provided ESI a claim chart comparing claims of the '150 patent and the '871 application to ESI's Skycop system that deploys Genetec's AutoVu technology. Simon's counsel further

demanded a payment for a license, provided a February 14, 2011 deadline for ESI to respond, and stated that "In the absence of a suitable resolution, Mr. Simon will be forced to consider other options to protect his intellectual property."

- 17. The '871 application issued as the '498 patent on February 1, 2011.
- 18. On February 8, 2011, Simon's counsel again wrote to Genetec about the '150 patent and the '871 application and referenced the potential filing of a lawsuit by Simon.
- 19. Genetec has informed Simon's counsel that Genetec does not believe it is required to license the Simon Patents, at least because the Simon Patents are invalid.

COUNT I

DECLARATORY JUDGMENT OF INVALIDITY AND NON-INFRINGEMENT OF THE '150 PATENT (20 M S. C. 20 2221 2222)

(28 U.S.C. §§ 2201-2202)

- 20. Genetec repeats and realleges the allegations of paragraphs 1-19 above as if set forth fully herein.
- 21. Simon has stated that certain of Genetec's products and methods infringe the '150 patent and that Genetec is required to license the '150 patent.
- 22. Genetec contends that it is not required to license the '150 patent because Genetec has not infringed and does not infringe, either directly or indirectly, any valid claim of the '150 patent.
- 23. Genetec contends that one or more claims of the '150 patent are invalid under 35 U.S.C. §§ 102, 103, and/or 112. For example, one or more claims of the '150 patent are invalid under §§ 102 and 103 in view of products used and sold in the U.S. as early as 2001 by Genetec's predecessor, AutoVu Technologies.
- 24. As a result of the acts described in the foregoing paragraphs, there exists a substantial controversy of sufficient immediacy and reality to warrant the issuance of a declaratory judgment.

- 25. An actual and justiciable controversy exists between Genetec and Simon as to whether the '150 patent is infringed by Genetec and/or is invalid. A judicial declaration is necessary and appropriate so that Genetec may ascertain its rights regarding the '150 patent.
- 26. Genetec is also entitled to further necessary or proper relief based on the Court's declaratory judgment or decree.

COUNT II

DECLARATORY JUDGMENT OF INVALIDITY AND NON-INFRINGEMENT OF THE '498 PATENT

(28 U.S.C. §§ 2201-2202)

- 27. Genetec repeats and realleges the allegations of paragraphs 1-26 above as if set forth fully herein.
- 28. Simon has stated that certain of Genetec's products and methods infringe the '498 patent and that Genetec is required to license the '498 patent.
- 29. Genetec contends that it is not required to license the '498 patent because Genetec has not infringed and does not infringe, either directly or indirectly, any valid claim of the '498 patent.
- 30. Genetec contends that one or more claims of the '498 patent are invalid under 35 U.S.C. §§ 102, 103, and/or 112. For example, one or more claims of the '498 patent are invalid under §§ 102 and 103 in view of products used and sold in the U.S. as early as 2001 by Genetec's predecessor, AutoVu Technologies.
- 31. As a result of the acts described in the foregoing paragraphs, there exists a substantial controversy of sufficient immediacy and reality to warrant the issuance of a declaratory judgment.
- 32. An actual and justiciable controversy exists between Genetec and Simon as to whether the '498 patent is infringed by Genetec and/or is invalid. A judicial declaration is necessary and appropriate so that Genetec may ascertain its rights regarding the '498 patent.

Genetec is also entitled to further necessary or proper relief based on 33. 1 2 the Court's declaratory judgment or decree. 3 PRAYER FOR RELIEF Wherefore, Genetec respectfully prays that the Court: 4 Declare that Genetec has not and is not infringing, either directly or 5 indirectly, any valid claim of the '150 patent and that the '150 patent is invalid, as 6 requested by Count I of this action; 7 8 В. Declare that Genetec has not and is not infringing, either directly or 9 indirectly, any valid claim of the '498 patent and that the '498 patent is invalid, as requested by Count II of this action; 10 For an award of all damages, including special damages, provable at C. 11 trial: 12 An order enjoining Simon, his officers, directors, agents, counsel, D. 13 servants, and employees, and all persons in active concert or participation with any 14 15 of them, from charging infringement of or instituting any action for infringement of the Simon Patents against Genetec and/or any of Genetec's customers or 16 downstream users of Genetec's products; 17 E. An order declaring that Genetec is the prevailing party and that this is 18 an exceptional case under 35 U.S.C. § 285 and awarding Genetec its costs, 19 20 including attorneys' fees, in connection with this action; and F. Award Genetec such other relief as the Court deems just and proper. 21 22 23 Dated: February 24, 2011 24 25 26 neys for Plaintiff Genetec Inc. 27

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Exhibit "A"



(12) United States Patent Simon

(10) Patent No.: (45) Date of Patent: US 7,711,150 B2 May 4, 2010

(54)	AUTONOMOUS WIDE-ANGLE LICENSE
	PLATE RECOGNITION

(76) Inventor: James Simon, 8 Estates Dr., Villa Park,

CA (US) 92861

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 1042 days.

10/546,555 (21) Appl. No.:

(22) PCT Filed: Jul. 10, 2003

(86) PCT No.: PCT/US03/21958

§ 371 (c)(1),

Aug. 22, 2005 (2), (4) Date:

(87) PCT Pub. No.: WO2005/015482

PCT Pub. Date: Feb. 17, 2005

(65)**Prior Publication Data**

> US 2006/0171564 A1 Aug. 3, 2006

(51) Int. Cl. G06K 9/00 (2006.01)

(58) Field of Classification Search 382/181, 382/182, 183, 318, 321, 100, 104, 105; 340/425.5, 340/426.1, 932.2, 933, 936, 969; 348/113-115 See application file for complete search history.

(56)References Cited

U.S. PATENT DOCUMENTS

5,793,420 A *	8/1998	Schmidt 348/148
6,476,730 B2 *	11/2002	Kakinami et al 340/932.2
2002/0080013 A1*	6/2002	Anderson et al 340/425.5
2002/0186297 AL*	12/2002	Bakewell 348/118
2004/0201460 AT*	10/2004	Bucholz et al 340/426.1

FOREIGN PATENT DOCUMENTS

11-296785 10/1999 KR 2002032050 A * 5/2002

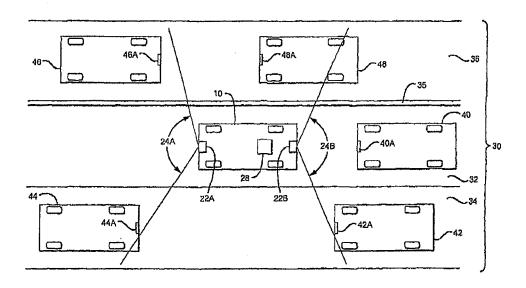
* cited by examiner

Primary Examiner-Samir A. Ahmed Assistant Examiner-Atiba O Fitzpatrick (74) Attorney, Agent, or Firm-Fish & Associates, PC

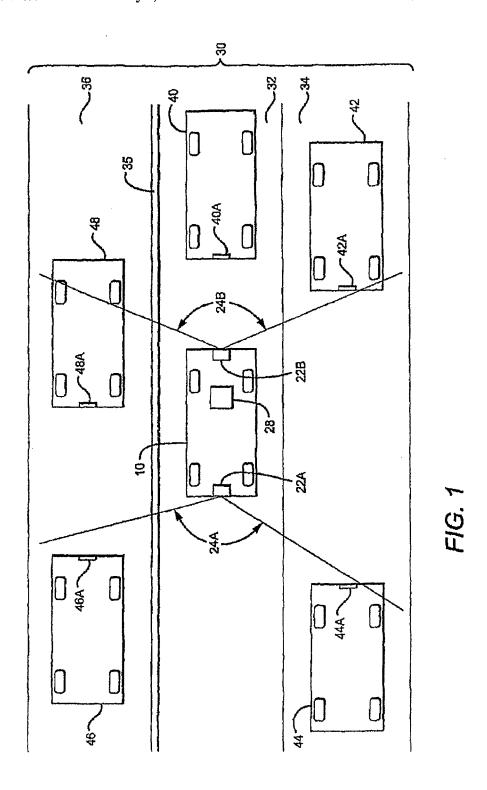
ABSTRACT (57)

A system in a moving surveillance vehicle operates in background mode to capture images of license plates of neighboring moving vehicles, which may occupy lanes other than the lane in which the surveillance vehicle is moving. The images are used to determine the license plate numbers of the moving vehicles, which are then checked against a database to determine whether there are any potential law enforcement-related problems that require the attention of the operator. If so, the system alerts the operator using an audible tone, visual prompt, vibration, or in some other suitable manner. The entire process, including generation of the alert can occur autonomously of the operator.

15 Claims, 2 Drawing Sheets



U.S. Patent May 4, 2010 Sheet 1 of 2 US 7,711,150 B2



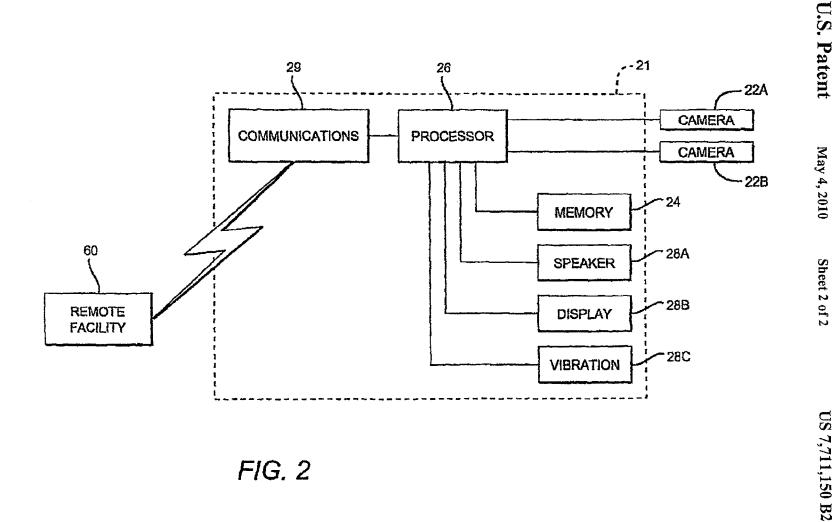


FIG. 2

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AUTONOMOUS WIDE-ANGLE LICENSE PLATE RECOGNITION

PIELD OF THE INVENTION

The present invention relates generally to license plate

BACKGROUND OF THE INVENTION

Traffic police, highway patrol and other mobile security personnel have a need to accurately and efficiently identify potential law enforcement problems with respect to nearby motor vehicles. One well-recognized strategy is to "run" license plate numbers of such vehicles against a database.

It is a well known practice for an officer in a patrol car to visually read a license plate of a target vehicle, and then call in the number to a support center. It is also known for an officer to utilize an on-board digital video camera to capture an image of the vehicle license plate of a parked vehicle, and 20 even to use an on-board computer to analyze the image to determine the license plate number. In both cases, however, conscious effort is required on the part of the officer, which diverts attention from driving or other activities. In some cases the diversion of attention can be dangerous, and can 25 even contribute to an otherwise preventable car accident.

A highly advanced license plate recognition and checking system is described in Japanese patent 11-296785, published on Oct. 29, 1999, the disclosure of which is incorporated herein in its entirety by reference. In that system the patrol car 30 is provided with an on-board camera and camera controller, optical character recognition (OCR) software, a database, and a display device. While moving along a road, the driver places the patrol car in front of or behind the target car, and then license plate of a preceding or following target vehicle, and sends the captured image to the on-board computer. OCR software running on the computer determines the license plate number, and applies that number against the on-board database. The results are displayed to the operator.

Apparently, the inventors of Japanese patent 11-296785 did not appreciate that (a) forcing the driver of the patrol car to maneuver his vehicle relative to the target vehicle, and (b) forcing the operator to trigger the camera, involve conscious efforts on the part of the driver, which preclude the system 45 from operating in a truly autonomous fashion. The issue of being fully autonomous is not a mere design choice. Fully autonomous operation is not only safer and more thorough, it also has a particularly important function in countering accusations of racial profiling. If a system could be devised that 50 would autonomously process license plate information of all vehicles in view of the camera, including vehicles in other lanes, then the operator could not be reasonably accused of focusing on any particular car or driver.

Thus, there is still a need for more fully autonomous sur- 55 veillance of moving automotive vehicles from another moving vehicle.

SUMMARY OF THE INVENTION

The present invention is generally directed to systems and methods in which a first moving vehicle (surveillance vehicle) captures vehicle license plate number information from a second moving vehicle in a fully autonomous fashion, and applies that information against a database to identify 65 potential problems with the second vehicle or its driver. In preferred embodiments the surveillance vehicle is preferably

a police car or other patrol unit; and the second vehicles can be in any lane that is visible from the camera, including the same lane as that occupied by the first vehicle, other driving lanes, and even in parking areas or road shoulders.

A digital video camera with a wide-angle lens is preferably used to capture the license place information. Alternatively, any other suitable image-capturing device could be used, including a still-image camera. The camera can advantageously be mounted on the front, rear, side or top of the 10 surveillance vehicle, and preferably has a viewing angle range of at least 120°.

An on-board processor can either (a) perform optical character recognition on an acquired image to determine the license plate number, or (b) transmit at least a portion of the image to a remote site for that determination. The license plate number can then be applied against one or more databases, which can be local and/or remote to the camera and processor, to identify potential problems with the car or driver of the second vehicle.

Ideally, each of these functions is carried out continuously, in background mode without any input from the driver or other operator of the vehicle carrying the system. When potential problems are identified, the operator is notified using an auditory, visual or other alert.

Various objects, features, aspects and advantages of the present invention will become more apparent from the following detailed description of preferred embodiments of the invention, along with the accompanying drawings in which like numerals represent like components.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a side perspective view of a moving surveillance vehicle carrying a surveillance system according to the inventriggers operation of the camera. The camera photographs the 35 tive subject matter, with neighboring vehicles in various

> FIG. 2 is a schematic representation of the surveillance system of FIG. 1.

DETAILED DESCRIPTION

FIG. 1 generally depicts a surveillance vehicle 10 equipped with a surveillance system 20 (see FIG. 2) that is driving along a roadway 30 in lane 32. Another vehicle 40 is traveling ahead of surveillance vehicle 10 in lane 22, while vehicles 42, 44 are traveling in the same direction as surveillance vehicle 10 in lane 34. Vehicles 46 and 48 are traveling in the oncoming direction in lane 36, across low median 35. Surveillance system 20 generally comprises first and second digital video cameras 22A, 22B, a processor 24 (see FIG. 2), and a signal generator 28 (see FIG. 2).

The surveillance vehicle 10 will often be a patrol car 10, but can be any road or off-road vehicle, including jeeps, trucks, ambulances, buses, recreational vehicles, fire engines, and so forth. The neighboring vehicles 40, 42, 44, 46 and 48 can likewise be any combination of any types of vehicles, and will obviously be dispersed around the patrol car 10 in a manner that varies infinitely over time. Most of the neighboring vehicles 40, 42, 44, 46 and 48 will have rear license plates, and some can have front license plates. In this drawing, the relevant license plates for vehicles 40, 42, 44, 46 and 48 are 40A, 42A, 44A, 46A, and 48A, respectively.

Cameras 22A, 22B are mounted at the front and rear portions of surveillance vehicle 10. Mounting can be on the bumpers or anywhere else, and can even be located in other positions such as in the siren tower on top of the surveillance vehicle 10 or inside the cab behind the windshield. One or

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both of cameras 22A, 22B can be mounted in the center line of the surveillance vehicle 10, or off-center in any suitable manner. There must of course be at least one camera, which could provide front, rear, side or combination coverage. Second, third, and other cameras are optional. A person skilled in the art should recognize that more than two cameras could be mounted on surveillance vehicle 10 in suitable locations (e.g., front, rear, side or top of vehicle) to allow up to 360° license plate scan coverage.

Each camera 22A, 22B has a lens (not shown) that "sees" license plates within their respective viewing angles 24A, 24B. A wide-angle lens (not shown) is optional, and where present would preferably be a high-precision spherical lens adapted to minimize distortion and other aberrations for sharp and high-contrast images with a viewing angle range of about 15 75°-150°. Preferred viewing angles are at least 90°, more preferably at least 120°, still more preferably at least 150°, and most preferably at least 160°. Viewing angles 24A, 24B are shown as being pointed directly forward and aft of surveillance vehicle 10, but can alternatively be pointed in other 20 directions as well. The viewing direction can optionally be motorized to scan a swath of area up, down, and sideways, or to point in a particular direction, and those functions can be automated and/or manual. As drawn, forward camera 22A can "see" license plates 40A, and 42A, but not license plate 25 48A. Rearward camera 22B can "see" license plate 44A, but not license plates 46A.

In FIG. 1 cameras 22A, 22B are ordinary video cameras. Other types of cameras can be used, including still cameras, charge-coupled device cameras for higher resolution, infraced cameras for night operations, and so forth. The focus is most likely set to infinite, but there can also be an automatic focusing mechanism (not shown). One or both of cameras 20, 22 can be advantageously provided with illumination, which can he in the form of a controlled light source (not shown) adapted to brighten vehicle license plates during the day and/or allow camera operation during the night. Alternatively, the illumination means can be an infra-red (IR) light source, i.e. invisible to the driver of the neighboring vehicles.

In FiG. 2 surveillance system 20 generally comprises first 40 and second digital video cameras 22A, 22B, a processor 24, memory 26, and an alort generator 28.

Processor 24 can be any suitable processor, including for example CPU(s) (central processing unit(s)) made by Intel Corp. (e.g., Pentium®, Xeon®), AMD (e.g., Athlon®), Motorola, IBM, etc., I/O (input/output) circuits, communication bus links, etc. Processor 24 receives digital image data input from cameras 22A, 22B, and processes the data software resident in memory 27. The software preferably includes an operating system (OS) (e.g., Windows®, Linux®, Unix®, Free BSD®, etc.), and optical character recognition programs.

Memory 27 can also advantageously include county-wide, state-wide, nation-wide, or even multi-country vehicle license plate number data, as well as related information of 55 interest such as law enforcement-related data. Information that is not available on-board the surveillance vehicle 10 can be accessed wirelessly from a remote facility 60. In that case system 20 would need to be adapted for wireless connection using communication hardware 29.

Optical character recognition preferably occurs on board vehicle 10, but may alternatively or additionally occur in the remote facility 60, or elsewhere. Any suitable OCR software can be used, such as that of Hi-Tech Solutions, currently available through www.htsol.com. Many suitable OCR algorithms operate in three stages. The first stage involves vectorizing the captured (raster) image. The second stage deals with

isolation of the vectors that describe the raster image. The third stage performs the subsequent alphanumeric character recognition to generate a plate string. More details on suitable theory, methods and algorithms can be found on the World-Wide-Web at: http://www.cae.wisc.edu/~woochull/course/lpr.html; http://www.cs.technion.ac.il/Labs/isl/Project/Projects_done/cars_plates/finalreport.htm; http://www.singaporegateway.com/optasia/imps, or in numerous literature sources such as, for example, "Computer Graphics: Principles and Practice", Foley, van Dam, Flener, and Hughes, Addison Wesley, Reading, Mass., 1990; which are incorporated herein by reference.

To lower cost, the processor 24, memory 28, and communication hardware 29 would generally he included as part of a laptop or other computer (shown generally as component 21) that had already been installed in vehicle 10 for other purposes. Alternatively, processor 40, memory 42, GUI 50, local license plate number database module 44, and speaker 46 can be implemented as an integral part of cameras 22A, 22B.

The network used to communicate with remote facility 60 could be the same network already being used by computer 21, or could be some other network. Transmission of license plate data between processor 24 and remote facility 60 can be encrypted using any suitable data encryption algorithms to ensure data security.

Processor 24 cooperates with one or more alert devices, such as speaker 28Å, computer display 28B, or vibratory interface 28C. Alternatively, processor 24 can utilize any other speaker (not shown) in the vehicle 10.

The entire system 20 is preferably programmed to operate autonomously in background mode, i.e., without any input being required from the operator. The operator is preferably only alerted where the system 20 has identified a possible law enforcement-related problem using the captured license plate information. System 20 can be designed to operate continuously for an extended period of time while vehicle 10 is patrolling the streets/highways, and can be turned on and off by the operator as desired.

Multiple instances of system 20 can be installed and operated on multiple surveillance vehicles for more efficient license plate number check coverage, and the various systems may cooperate with each other by exchanging information. System 20 can also be operated in conjunction with global satellite or other positioning systems (not shown). Thus, for example, one squad car may identify a neighboring vehicle at a given location, and another squad car may identify the same vehicle 30 minutes later at another location. By calculating the distance traveled by the targeted vehicle, the system could calculate the minimum speed that the target vehicle traveled during that time frame. The vehicle license data gathered by system 20 during routine surveillance patrols could also be used for other than law enforcement purposes, as needed and/or authorized by local law regulations.

A contemplated method includes the following steps: The processor 26 activates one or more cameras 22A, 22B, which capture images of nearby vehicle license plates. The captured information is read by a frame grabber in each camera. Pixel output from the frame grabber(s) is passed by the processor 26 through image processing software algorithms to enhance the image, if necessary, detect the vehicle license plate position, and through OCR software algorithms determine a license place number. The processor then checks the license plate number against corresponding data records stored in memory 28, or in remote license plate number facility 60, for potential law enforcement-related vehicle problems. If a problem is identified, the operator (not shown) is alerted

audibly, visually or in a vibratory manner using one or more of speaker 28A, computer display 28B, or vibratory interface 28C, respectively.

While the present invention has been described in detail with regards to the preferred embodiments, it should be 5 appreciated that various modifications and variations can be made in the present invention without departing from the scope or spirit of the invention. In this regard it is important to note that practicing the invention is not limited to the applications described hereinabove. Many other applications and/ 10 or alterations can be utilized provided that such other applications and/or alterations do not depart from the intended purpose of the present invention. Also, features illustrated or described as part of one embodiment can be used in another embodiment to provide yet another embodiment such that the 15 features are not limited to the specific embodiments described above. Thus, it is intended that the present invention cover all such embodiments and variations as long as such embodiments and variations come within the scope of the appended claims and their equivalents.

What is claimed is:

- 1. A system for alerting an operator of a moving surveillance vehicle with respect to first and second license plates on moving first and second target vehicles within camera surveillance distance of the surveillance vehicle, respectively, 25 comprising:
 - at least first and second cameras mounted on the surveillance vehicle, and collectively configured to capture, without a need for input from the operator, images of each of the license plates of the target vehicles regardless 30 of whether the target vehicles are in a same lane as the surveillance vehicle, or in left or right adjacent lanes to that of the surveillance vehicle; and
- at least one processor carried by the surveillance vehicle that continuously uses character recognition to determine the first and second license plate numbers only upon discovering that there is a potential problem related to the second or third moving vehicles, all without a need for input from the operator.
- 2. The system of claim 1, wherein the surveillance vehicle 40 comprises a police patrol unit.

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- The system of claim 1, wherein the first camera comprises a motion video camera.
- The system of claim 1, wherein the first camera comprises a still image camera.
- 5. The system of claim 1, wherein the first camera is mounted at the front of the first vehicle.
- 6. The system of claim 5, wherein the second camera is mounted at the rear of the first vehicle.
- 7. The system of claim 1, wherein the first camera has a viewing angle of is at least 160 degrees.
- 8. The system of claim 1, wherein the first camera has sufficient sensitivity to identify the first license plate number while the first target vehicle is moving at a speed of at least 50 kilometers per hour.
- 9. The system of claim 1, wherein the processor is programmed to access a license plate database local to the surveillance vehicle.
- 10. The system of claim 1, wherein the processor is programmed to transmit at least a portion of at least one of the images to a remote facility for license plate recognition.
- 11. The system of claim 1, wherein the processor is programmed to receive information related to the potential problem from a remote facility.
- 12. The system of claim 1, further comprising an auditory alert that alerts the operator to the existence of the potential problem.
- 13. The system of claim 1, further comprising a non-auditory alert that alerts the operator to the existence of the potential problem.
- 14. The system of claim 1, wherein the surveillance vehicle comprises a police patrol unit, the first camera has a viewing angle of at least 160 degrees, and the processor is programmed to access a database local to the first vehicle.
- 15. The system of claim 1, wherein the surveillance vehicle comprises a police patrol unit, the camera has a viewing angle of at least 160 degrees, and the processor is programmed to transmit at least a portion of at least one of the images to a remote facility for license plate recognition.

* * * * *

Exhibit "B"



(12) United States Patent Simon

(10) Patent No.:

US 7,881,498 B2

(45) Date of Patent:

Feb. 1, 2011

(54) AUTONOMOUS WIDE-ANGLE LICENSE PLATE RECOGNITION

Inventor: James Simon, 8 Estates Dr., Villa Park,

CA (US) 92861

(*) Notice: Subject to any disclaimer, the term of this

patent is extended or adjusted under 35

U.S.C. 154(b) by 0 days.

(21) Appl. No.: 12/757,262

(22)Filed: Apr. 9, 2010

(65)**Prior Publication Data**

> US 2010/0195871 A1 Aug. 5, 2010

Related U.S. Application Data

(63) Continuation of application No. 10/546,555, filed as application No. PCT/US03/21958 on Jul. 10, 2003, now Pat. No. 7,711,150.

(51) Int. Cl. G06K 9/00 (2006.01)

382/104, 105, 181, 182, 183, 318, 321; 340/425.5, 340/426.1, 932.2, 933, 936, 969; 348/113-115 See application file for complete search history.

(56)References Cited

U.S. PATENT DOCUMENTS

1/1995 Gerber 5,381,155 A 5,793,420 A 8/1998 Schmidt 6,476,730 B2 11/2002 Kakinami et al. 2002/0080013 A1 6/2002 Anderson et al. 2002/0186297 A1 12/2002 Bakewell 2004/0201460 AI 10/2004 Bucholz et al.

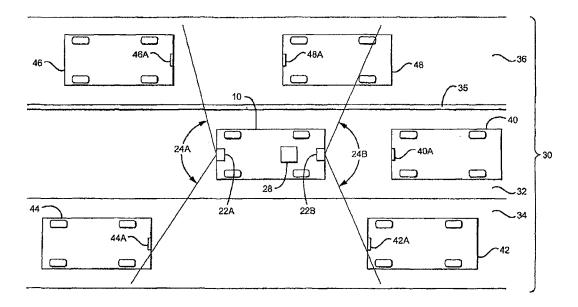
Primary Examiner-Samir A Ahmed Assistant Examiner-Atiba O Fitzpatrick

(74) Attorney, Agent, or Firm-Fish & Associates, PC

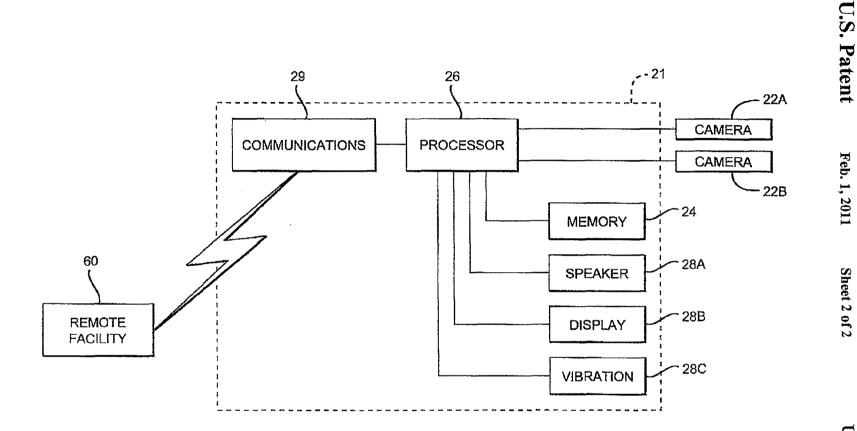
ABSTRACT

A system in a moving surveillance vehicle operates in background mode to capture images of license plates of neighboring moving vehicles, which may occupy lanes other than the lane in which the surveillance vehicle is moving. The images are used to determine the license plate numbers of the moving vehicles, which are then checked against a database to determine whether there are any potential law enforcement-related problems that require the attention of the operator. If so, the system alerts the operator using an audible tone, visual prompt, vibration, or in some other suitable manner. The entire process, including generation of the alert can occur autonomously of the operator.

11 Claims, 2 Drawing Sheets



U.S. Patent US 7,881,498 B2 Feb. 1, 2011 Sheet 1 of 2 30 22B 28, 10 22A



US 7,881,498 B2

FIG. 2

US 7,881,498 B2

AUTONOMOUS WIDE-ANGLE LICENSE PLATE RECOGNITION

This application is a continuation of U.S. patent application Ser. No. 10/546,555 filed Aug. 22, 2005 which is a U.S. National Phase of PCT/US03/21958 filed Jul. 10, 2003. These and all other extrinsic materials discussed herein are incorporated by reference in their entirety. Where a definition or use of a term in an incorporated reference is inconsistent or definition of that term provided herein applies and the definition of that term in the reference does not apply.

FIELD OF THE INVENTION

The present invention relates generally to license plate recognition.

BACKGROUND OF THE INVENTION

Traffic police, highway patrol and other mobile security personnel have a need to accurately and efficiently identify potential law enforcement problems with respect to nearby motor vehicles. One well-recognized strategy is to "run" license plate numbers of such vehicles against a database.

It is a well known practice for an officer in a patrol car to visually read a license plate of a target vehicle, and then call in the number to a support center. It is also known for an officer to utilize an on-board digital video camera to capture an image of the vehicle license plate of a parked vehicle, and 30 even to use an on-board computer to analyze the image to determine the license plate number. In both cases, however, conscious effort is required on the part of the officer, which diverts attention from driving or other activities. In some cases the diversion of attention can be dangerous, and can 35 even contribute to an otherwise preventable car accident.

A highly advanced license plate recognition and checking system is described in Japanese patent 11-296785, published on Oct. 29, 1999, the disclosure of which is incorporated herein in its entirety by reference. In that system the patrol car 40 is provided with an on-board camera and camera controller, optical character recognition (OCR) software, a database, and a display device. While moving along a road, the driver places the patrol car in front of or behind the target car, and then triggers operation of the camera. The camera photographs the 45 lanes. license plate of a preceding or following target vehicle, and sends the captured image to the on-board computer. OCR software running on the computer determines the license plate number, and applies that number against the on-board database. The results are displayed to the operator.

Apparently, the inventors of Japanese patent 11-296785 did not appreciate that (a) forcing the driver of the patrol car to maneuver his vehicle relative to the target vehicle, and (b) forcing the operator to trigger the camera, involve conscious efforts on the part of the driver, which preclude the system 55 from operating in a truly autonomous fashion. The issue of being fully autonomous is not a mere design choice. Fully autonomous operation is not only safer and more thorough, it also has a particularly important function in countering accusations of racial profiling. If a system could be devised that 60 would autonomously process license plate information of all vehicles in view of the camera, including vehicles in other lanes, then the operator could not be reasonably accused of focusing on any particular car or driver.

Thus, there is still a need for more fully autonomous sur- 65 veillance of moving automotive vehicles from another moving vehicle.

2 SUMMARY OF THE INVENTION

The present invention is generally directed to systems and methods in which a first moving vehicle (surveillance vehicle) captures vehicle license plate number information from a second moving vehicle in a fully autonomous fashion, and applies that information against a database to identify potential problems with the second vehicle or its driver. In preferred embodiments the surveillance vehicle is preferably contrary to the definition of that term provided herein, the 10 a police car or other patrol unit; and the second vehicles can be in any lane that is visible from the camera, including the same lane as that occupied by the first vehicle, other driving lanes, and even in parking areas or road shoulders.

> A digital video camera with a wide-angle lens is preferably used to capture the license place information. Alternatively, any other suitable image-capturing device could be used, including a still-image camera. The camera can advantageously be mounted on the front, rear, side or top of the surveillance vehicle, and preferably has a viewing angle 20 range of at least 120°.

An on-board processor can either (a) perform optical character recognition on an acquired image to determine the license plate number, or (b) transmit at least a portion of the image to a remote site for that determination. The license plate number can then be applied against one or more databases, which can be local and/or remote to the camera and processor, to identify potential problems with the car or driver of the second vehicle.

Ideally, each of these functions is carried out continuously, in background mode without any input from the driver or other operator of the vehicle carrying the system. When potential problems are identified, the operator is notified using an auditory, visual or other alert.

Various objects, features, aspects and advantages of the present invention will become more apparent from the following detailed description of preferred embodiments of the invention, along with the accompanying drawings in which like numerals represent like components.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a side perspective view of a moving surveillance vehicle carrying a surveillance system according to the inventive subject matter, with neighboring vehicles in various

FIG. 2 is a schematic representation of the surveillance system of FIG. 1.

DETAILED DESCRIPTION

FIG. 1 generally depicts a surveillance vehicle 10 equipped with a surveillance system 20 (see FIG. 2) that is driving along a roadway 30 in lane 32. Another vehicle 40 is traveling ahead of surveillance vehicle 10 in lane 32, while vehicles 42, 44 are traveling in the same direction as surveillance vehicle 10 in lane 34. Vehicles 46 and 48 are traveling in the oncoming direction in lane 36, across low median 35. Surveillance system 20 generally comprises first and second digital video cameras 22A, 22B, a processor 26 (see FIG. 2), and an alert generator (see FIG. 2, 28A-28C).

The surveillance vehicle 10 will often be a patrol car, but can be any road or off-road vehicle, including jeeps, trucks, ambulances, buses, recreational vehicles, fire engines, and so forth. The neighboring vehicles 40, 42, 44, 46 and 48 can likewise be any combination of any types of vehicles, and will obviously be dispersed around the surveillance vehicle 10 in a manner that varies infinitely over time. Most of the neigh-

boring vehicles 40, 42, 44, 46 and 48 will have rear license plates, and some can have front license plates. In this drawing, the relevant license plates for vehicles 40, 42, 44, 46 and 48 are 40A, 42A, 44A, 46A, and 48A, respectively.

Cameras 22A, 22B are mounted at the front and rear por- 5 tions of surveillance vehicle 10. Mounting can be on the bumpers or anywhere else, and can even be located in other positions such as in the siren tower on top of the surveillance vehicle 10 or inside the cab behind the windshield. One or both of cameras 22A, 22B can be mounted in the center line 10 of the surveillance vehicle 10, or off-center in any suitable manner. There must of course be at least one camera, which could provide front, rear, side or combination coverage. Second, third, and other cameras are optional. A person skilled in the art should recognize that more than two cameras could be 15 mounted on surveillance vehicle 10 in suitable locations (e.g., front, rear, side or top of vehicle) to allow up to 360° license plate scan coverage.

Each camera 22A, 22B has a lens (not shown) that "sees" 24B. A wide-angle lens (not shown) is optional, and where present would preferably be a high-precision spherical lens adapted to minimize distortion and other aberrations for sharp and high-contrast images with a viewing angle range of about 75°-150°. Preferred viewing angles are at least 90°, more 25 preferably at least 120°, still more preferably at least 150°, and most preferably at least 160°. Viewing angles 24A, 24B are shown as being pointed directly forward and aft of surveillance vehicle 10, but can alternatively be pointed in other directions as well. The viewing direction can optionally be 30 motorized to scan a swath of area up, down, and sideways, or to point in a particular direction, and those functions can be automated and/or manual. As drawn, forward camera 22B can "see" license plates 40A, and 42A, but not license plate 48A. Rearward camera 22A can "see" license plate 44A, and 35 license plate 46A.

In FIG. 1 cameras 22A, 22B are ordinary video cameras. Other types of cameras can be used, including still cameras, charge-coupled device cameras for higher resolution, infrared cameras for night operations, and so forth. The focus is 40 most likely set to infinite, but there can also be an automatic focusing mechanism (not shown). One or both of cameras 20, 22 can be advantageously provided with illumination, which can be in the form of a controlled light source (not shown) adapted to brighten vehicle license plates during the day 45 and/or allow camera operation during the night. Alternatively, the illumination means can be an infra-red (IR) light source, i.e. invisible to the driver of the neighboring vehicles.

In FIG. 2 surveillance system 20 generally comprises first and second digital video cameras 22A, 22B, a processor 26, 50 memory 24, and an alert generator (see FIG. 2, 28A-28C).

Processor 26 can be any suitable processor, including for example CPU(s) (central processing unit(s)) made by Intel Corp. (e.g., Pentium®, Xeon®), AMD (e.g., Athlon®), Motorola, IBM, etc., I/O (input/output) circuits, communica- 55 tion bus links, etc. Processor 26 receives digital image data input from cameras 22A, 22B, and processes the data software resident in memory 24. The software preferably includes an operating system (OS) (e.g., Windows®, Linux®, Unix®, Free BSD®, etc.), and optical character recognition 60 programs.

Memory 24 can also advantageously include county-wide, state-wide, nation-wide, or even multi-country vehicle license plate number data, as well as related information of interest such as law enforcement-related data. Information 65 that is not available on-board the surveillance vehicle 10 can be accessed wirelessly from a remote facility 60. In that case

system 20 would need to be adapted for wireless connection using communication hardware 29.

Optical character recognition preferably occurs on board vehicle 10, but may alternatively or additionally occur in the remote facility 60, or elsewhere. Any suitable OCR software can be used, such as that of Hi-Tech Solutions, currently available through www.htsol.com. Many suitable OCR algorithms operate in three stages. The first stage involves vectorizing the captured (raster) image. The second stage deals with isolation of the vectors that describe the raster image. The third stage performs the subsequent alphanumeric character recognition to generate a plate string. More details on suitable theory, methods and algorithms can be found on the World-Wide-Web at: http://www.cae.wisc.edu/~woochull/course/ lpr.html; http://www.cs.technion.ac.il/Labs/Isl/Project/ Projects_done/cars_plates/finalreport.htm; http:// www.singaporegateway.com/optasia/imps, or in numerous literature sources such as, for example, "Computer Graphics: Principles and Practice", Foley, van Dam, Flener, and license plates within their respective viewing angles 24A, 20 Hughes, Addison Wesley, Reading, Mass., 1990; which are incorporated herein by reference.

To lower cost, the processor 26, memory 24, and communication hardware 29 would generally be included as part of a laptop or other computer (shown generally as component 21) that had already been installed in vehicle 10 for other purposes. Alternatively, processor 26, memory 24, display 28B, and speaker 28A can be implemented as an integral part of cameras 22A, 22B.

The network used to communicate with remote facility 60 could be the same network already being used by computer 21, or could be some other network. Transmission of license plate data between processor 24 and remote facility 60 can be encrypted using any suitable data encryption algorithms to ensure data security.

Processor 26 cooperates with one or more alert devices, such as speaker 28A, computer display 28B, or vibratory interface 28C. Alternatively, processor 26 can utilize any other speaker (not shown) in the vehicle 10.

The entire system 20 is preferably programmed to operate autonomously in background mode, i.e., without any input being required from the operator. The operator is preferably only alerted where the system 20 has identified a possible law enforcement-related problem using the captured license plate information. System 20 can be designed to operate continuously for an extended period of time while vehicle 10 is patrolling the streets/highways, and can be turned on and off by the operator as desired.

Multiple instances of system 20 can be installed and operated on multiple surveillance vehicles for more efficient license plate number check coverage, and the various systems may cooperate with each other by exchanging information. System 20 can also be operated in conjunction with global satellite or other positioning systems (not shown). Thus, for example, one squad car may identify a neighboring vehicle at a given location, and another squad car may identify the same vehicle 30 minutes later at another location. By calculating the distance traveled by the targeted vehicle, the system could calculate the minimum speed that the target vehicle traveled during that time frame. The vehicle license data gathered by system 20 during routine surveillance patrols could also be used for other than law enforcement purposes, as needed and/or authorized by local law regulations.

A contemplated method includes the following steps: The processor 26 activates one or more cameras 22A, 22B, which capture images of nearby vehicle license plates. The captured information is read by a frame grabber in each camera. Pixel output from the frame grabber(s) is passed by the processor

26 through image processing software algorithms to enhance the image, if necessary, detect the vehicle license plate position, and through OCR software algorithms determine a license plate number. The processor then checks the license plate number against corresponding data records stored in 5 memory 24, or in remote license plate number facility 60, for potential law enforcement-related vehicle problems. If a problem is identified, the operator (not shown) is alerted audibly, visually or in a vibratory manner using one or more of speaker 28A, computer display 28B, or vibratory interface 10 28C, respectively.

While the present invention has been described in detail with regards to the preferred embodiments, it should be appreciated that various modifications and variations can be made in the present invention without departing from the 15 scope or spirit of the invention. In this regard it is important to note that practicing the invention is not limited to the applications described hereinabove. Many other applications and/ or alterations can be utilized provided that such other applications and/or alterations do not depart from the intended 20 purpose of the present invention. Also, features illustrated or described as part of one embodiment can be used in another embodiment to provide yet another embodiment such that the features are not limited to the specific embodiments described above. Thus, it is intended that the present invention cover all 25 such embodiments and variations as long as such embodiments and variations come within the scope of the appended claims and their equivalents.

What is claimed is:

surveillance vehicle, comprising:

providing or operating the surveillance vehicle with a camera system disposed to capture license plate information on each of the target vehicles regardless of whether the target vehicles are in a same lane as the surveillance 35 vehicle, or in left or right adjacent lanes to that of the surveillance vehicle, while the surveillance vehicle and the target vehicles are all moving; and

providing or operating the surveillance vehicle with a computer programmed to use the license plate information to determine license plate numbers for each of the target

6

vehicles, and alert an operator of the surveillance vehicle only upon discovering that there is a potential problem related to one of the target vehicles, all without a need for input from the operator.

- 2. The method of claim 1, wherein a first one of the target vehicles is traveling in the same lane as the surveillance vehicle, and concurrently a second one of the target vehicles is traveling in the left lane adjacent to that of the surveillance vehicle, and concurrently a third one of the target vehicles is traveling in the right lane adjacent to that of the surveillance vehicle.
- 3. The method of claim 2, wherein the computer is further programmed to discover the potential problem at least in part by comparing the license plate numbers to data in a database.
- 4. The method of claim 3, further comprising the computer accessing the database from a source local to the surveillance
- 5. The method of claim 3, further comprising the computer accessing the database from a source distal to the surveillance
- 6. The method of claim 2, wherein the camera system comprises a first camera mounted at a front portion of the surveillance vehicle, and a second camera is mounted at a rear portion of the surveillance vehicle.
- 7. The method of claim 2, further comprising alerting the operator of the surveillance vehicle of the potential problem while the surveillance vehicle is traveling at a speed at least 50 kilometers per hour.
- 8. The method of claim 2, further comprising transmitting 1. A method of surveilling multiple target vehicles from a 30 at least a portion of at least one image captured by the camera system to a remote facility for license plate recognition.
 - 9. The method of claim 2, further comprising, transmitting at least one of the license plate numbers to a remote facility to determine the potential problem.
 - 10. The method of claim 2, further comprising using a sound to alert the operator of the existence of the potential
 - 11. The method of claim 2, further comprising using a non-auditory alert to apprise the operator of the existence of 40 the potential problem.

Exhibit "C"



Fish & Associates, PC 2603 Main Street Suire 1000 Irvine, CA 92614-4271 Main: 949 943 8300 Fax: 949 943 8358 info@fishiplaw.com

January 20, 2011

Mr. John Osteen Vice President of Sales ESI Companies 1864 Vanderhorn Dr. Memphis, TN 38134

RE: URGENT – Patent Infringement by ESI Companies

Our Ref: 101040.0002

Dear Mr. Osteen:

Our firm represents James Simon in his intellectual property matters. Mr. Simon is the owner of recently issued U.S. Patent No. 7,711,150 ("the '150 Patent") and recently allowed US Patent Application Publication No. 2010/0195871 ("the '871 Application"). The '150 Patent and the '871 Application are directed to automatic license plate recognition (ALPR) systems. A copy of each has been enclosed for your review.

Recently, it has come to our client's attention that ESI Companies. (hereinafter "ESI"), sells an automatic license plate recognition system, named Skycop Mobile License Plate Recognition & Video Surveillance System (MLPRV).

Based on ESI's web site at http://skycopvideo.com/home and the associated webpages, the Skycop MLPRV system appears to fall within the scope of one or more of the claims of the '150 Patent and the '871 Application. A claim chart containing a preliminary infringement analysis of ESI's system for claim one of the '150 Patent and '871 Application are enclosed for your review.

As ESI undoubtedly understands, unlicensed and uncontrolled use of Mr. Simon's technology interferes with his legitimate business and licensing activities. Therefore, on behalf of Mr. Simon we demand that ESI, its agents, employees, principals, officers, directors, servants, assigns, attorneys and all persons and/or entities in privity and/or concert with it, immediately cease and desist any and all further use of ESI's infringing technology.

To resolve this matter Mr. Simon is willing to negotiate a mutually advantageous license agreement. Mr. Simon is currently negotiating settlements with other license plate recognition distributors and expects to settle at \$60,000 for a fully paid up license. We are hopeful that this matter can be resolved expeditiously and amicably, and request a written response from ESI or its counsel by the close of business on **February 14, 2011**. In the absence of a suitable resolution, Mr. Simon will be forced to consider other options to protect his intellectual property.

Letter to ESI Companies January 20, 2011 Page 2

Should you have any questions, please do not hesitate to contact us.

This letter does not constitute a complete statement of Mr. Simon's claims, rights, or remedies with respect to this matter, all of which are hereby expressly reserved.

Sincerely,

Robert D. Fish, Esq.

RDF:vw Enclosures Table 1

Table 1	
US7711150 (Simon)	Skycop MLPRV System
1. A system for alerting an operator of a moving	Skycop can be installed on moving police cars and
surveillance vehicle with respect to first and second	can be used to read license plates of moving target
license plates on moving first and second target	vehicles.
vehicles within camera surveillance distance of the	
surveillance vehicle, respectively, comprising:	Skycop provides automatic alerts to the police car
	operator during real-time operation.
	operator and appropriate the control of the control
	Skycop deploys Genetec AutoVu technology.
	AUTOVU Patroller cameras are installed on police
	cars and can read license plates of moving vehicles.
	Autovu alerts the driver of "wanted" vehicles or
	vehicles of interest. AUTOVU can read license
	plate numbers of cars moving up to 140 mph
	(differential speeds).
at least first and second cameras mounted on	Skycop can be used on a moving police car.
the surveillance vehicle,	Clause dealess Courte Asset Viscos I and
	Skycop deploys Genetec AutoVu technology.
	AUTOVU Patroller can work with two camera
	feeds (CCTV camera integration).
and collectively configured to capture, without	Skycop deploys Genetec AutoVu technology.
a need for input from the operator, images of	AUTOVU Patroller automates the collection and
each of the license plates of the target vehicles	verification of license plates. AUTOVU deciphers
	license plate numbers using Fuzzy matching and
	OCR equivalents. Once license plate numbers are
	read, they are compared to a database of vehicles of
	interest.
regardless of whether the target vehicles are in	Skycop deploys Genetec AutoVu technology.
a same lane as the surveillance vehicle, or in	AUTOVU Patroller cameras can read license plate
left or right adjacent lanes to that of the	numbers in up to two lanes of traffic on either side
surveillance vehicle; and	of the vehicle. AUTOVU can also read cars parked
	in parallel at 45 and 90 degree angles.
at least one processor carried by the	Skycop deploys Genetec AutoVu technology.
surveillance vehicle	AUTOVU Patroller software can be installed on a
	patroller car's computer.
that continuously uses character recognition to	Skycop deploys Genetec AutoVu technology.
determine the first and second license plate	AUTOVU Patroller uses OCR and fuzzy matching
numbers,	to decipher license plate numbers. AUTOVU
•	Patroller automates the license plate recognition
	and matching, running in the background without
	the need for user interaction.
and to alert the operator only upon discovering	Skycop can compare the read license plates to
that there is a potential problem related to the	hotlists and automatically alert the police car driver
first or second target vehicle,	of a hit.
,	
	Skycop deploys Genetec AutoVu technology.
	AUTOVU Patroller alerts the users of license
	plates of wanted felons or amber alert suspected
	vehicles, scofflaw vehicles, or vehicles in parking
	violations.
all without a need for input from the operator.	Skycop provides automatic alerts in real-time
an without a need for input from the operator.	operation.
	operation.

	Skycop deploys Genetec AutoVu technology. AUTOVU Patroller automates the license plate recognition and matching, running in the background without the need for user interaction.

Table 2

US2010/0195871A1 (Simon)	Skycop MLPRV System			
A method of surveilling multiple target	Skycop deploys Genetec AutoVu technology.			
vehicles from a surveillance vehicle,	AUTOVU can read license plates from multiple			
comprising:	cars spanning two adjacent lanes of traffic.			
providing or operating the surveillance	Skycop uses cameras installed on moving police			
vehicle with a camera system disposed to	cars to read license plates of target vehicles.			
capture license plate information on each of	Skycop deploys Genetec AutoVu technology.			
the target vehicles	AUTOVU reads images from cameras mounted on			
	the patrol car and deciphers license plate numbers			
	via OCR.			
regardless of whether the target vehicles	Skycop deploys Genetec AutoVu technology.			
are in a same lane as the surveillance	AUTOVU cameras can read license plate numbers			
vehicle, or in left or right adjacent lanes to	in up to two lanes of traffic on either side of the			
that of the surveillance vehicle,	vehicle. AUTOVU can also read cars parked in			
while the surveillance vehicle and the	parallel at 45 and 90 degree angles. Skycop can read license plates of moving vehicles			
target vehicles are all moving; and	from a moving police car.			
target vehicles are an moving, and	nom a moving ponce car.			
	Skycop deploys Genetec AutoVu technology.			
	AUTOVU is installed on a patrol car and can read			
	license plates of moving vehicles while the patrol			
	car is moving up to 140 mph (differential speed).			
providing or operating the surveillance	Skycop deploys Genetec AutoVu technology.			
vehicle with a computer programmed to	AUTOVU software is installed on a patrol car's computer. The software deciphers license plate			
use the license plate information to	numbers using OCR and compares the number to a			
determine license plate numbers for each of	database of vehicles of interest.			
the target vehicles,				
and alert an operator of the surveillance	Skycop can automatically alert the police car driver in real-time operation when license plates of			
vehicle only upon discovering that there is	vehicles on a hotlist are detected.			
a potential problem related to one of the	venicles on a nomist are detected.			
target vehicles,	Skycop deploys Genetec AutoVu technology.			
	AUTOVU alerts the user when a license plate			
	number of interest has been identified, for example,			
	wanted felons or amber alert suspected vehicles,			
	scofflaw vehicles, or vehicles in parking violations.			
all without a need for input from the	Skycop automatically alerts the police car driver in			
operator.	real-time operation.			
	Skycop deploys Genetec AutoVu technology.			
	AUTOVU automates the license plate recognition			

and matching, running in the background without
the need for user interaction.

UNITED STATES DISTRICT COURT CENTRAL DISTRICT OF CALIFORNIA

NOTICE OF ASSIGNMENT TO UNITED STATES MAGISTRATE JUDGE FOR DISCOVERY

This case has been assigned to District Judge Percy Anderson and the assigned discovery Magistrate Judge is Margaret A. Nagle.

The case number on all documents filed with the Court should read as follows:

CV11- 1660 PA (MANx)

Pursuant to General Order 05-07 of the United States District Court for the Central District of California, the Magistrate Judge has been designated to hear discovery related motions.

All discovery related mo	tions should be notice	ed on the calendar of	the Magistrate Judge
		·	
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NOTICE TO COUNSEL

A copy of this notice must be served with the summons and complaint on all defendants (if a removal action is filed, a copy of this notice must be served on all plaintiffs).

Subsequent documents must be filed at the following location:

 Western Division 312 N. Spring St., Rm. G-8 Los Angeles, CA 90012	L	Southern Division 411 West Fourth St., Rm. 1-053 Santa Ana, CA 92701-4516	 Eastern Division 3470 Twelfth St., Rm. 1 Riverside, CA 92501	3

Fallure to file at the proper location will result in your documents being returned to you.

AO 440 (Rev. 12/09) Summons in a Civil Action

UNITED STATES DISTRICT COURT

for the

Central District of California

GENETEC INC., a Canadian corporation,)	
Plaintiff v. JAMES SIMON, a California resident,)) Civil Action No.))	CV 11-01660 PA(MANx)
Defendant)	•

SUMMONS IN A CIVIL ACTION

To: (Defendant's name and address) JAMES SIMON 8 Estates Drive Villa Park, CA 92861

A lawsuit has been filed against you.

Within 21 days after service of this summons on you (not counting the day you received it) — or 60 days if you are the United States or a United States agency, or an officer or employee of the United States described in Fed. R. Civ. P. 12 (a)(2) or (3) — you must serve on the plaintiff an answer to the attached complaint or a motion under Rule 12 of the Federal Rules of Civil Procedure. The answer or motion must be served on the plaintiff or plaintiff's attorney, whose name and address are:

Megan M. Chung Kilpatrick Townsend & Stockton LLP 12730 High Bluff Drive Suite 400 San Diego, CA 92130

If you fail to respond, judgment by default will be entered against you for the relief demanded in the complaint. You also must file your answer or motion with the court.

Date:

Signdture of Clerk or Deputy Clerk

J. Barrera

CLERK OF COURT





UNITED STATES DISTRICT COURT, CENTRAL DISTRICT OF CALIFORNIA

		CIVIL COVE	X SHEE!				
I (a) PLAINTIFFS (Check box if you are r GENETEC, INC.	representing yourself □)	Ĭ	DEFENDANTS IAMES SIMON				
(b) Attorneys (Firm Name, Address and To	elephone Number. If you are	representing	Attorneys (If Known)				
yourself, provide same.)							
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VI. CAUSE OF ACTION (Cite the U.S. C 28 U.S.C. Sec 2201 - Declaratory Judg	Civil Statute under which you	are filing and wri ment and Patent 1	te a brief statement of convalidity	ause. Do no	ot cite jurisdictional sta	tutes unless diversity.	·
VII. NATURE OF SUIT (Place an X in o	one box only.)						
400	Surance arine 310 310 310 315 315 315 315 315 315 315 315 315 315	RSONAL INJURY A Airplane A Airplane A Airplane A Airplane A Airplane A Assault, Libel & Slander Fed. Employers Liability Marine Marine Motor Vehicle Motor Vehicle Motor Vehicle Product Liability Other Personal Injury Med Malpractic Personal Injury Product Liability A Asbestos Perso Injury Product Liability A Asbestos Perso Injury Product Liability MMMGRATION Naturalization Application Habeas Corpus Alien Detainee Other Immigra Actions	PERSONAL PROPERTY Of 370 Other Frau 371 Truth in Li 380 Other Pers Property C 385 Property C 422 Appeal 28 158 423 Withdraw USC 157 CIVIL RIGH 441 Voting 442 Employme 443 Housing/ minodatio 444 Welfare 445 American Disabilitie Employme 446 American Disabilitie Cher 440 Other Civ Rights	dd ending conal conal conal conal conal conal conal conal conange cona	PRISONER PETITIONS 10 Motions to Vacate Sentence Habeas Corpus 30 General 335 Death Penalty 400 Mandamus/ Other 550 Civil Rights 555 Prison Condition FORFEITURE / PENALTY 510 Agriculture 520 Other Food & Drug 625 Drug Related Seizure of Property 21 USC 881 630 Liquor Laws 640 R.R. & Truck 650 Airline Regs 660 Occupational Safety /Health 690 Other	LABOR 710 Fair Labor St Act 720 Labor/Mgmt. Relations 730 Labor/Mgmt. Reporting & Disclosure A. 740 Rail way Lab 790 Other Labor Litigation 791 Empl. Ret. In Security Act 820 Copyrights 830 Patent 840 Trademark 800 Trademark 861 HIA (1395H 862 Black Lung 863 Black Lung 864 SSID Title 865 RSI (405(g) 864 SSID Title 870 Taxes (U.S. or Defendar 871 RS-Third P USC 7609	nct toor Act inc. : SHTS RITY () (923) W XVI) SUITS Plaintiff pt)
	CV 11-01	660 PA(M	ANx)				
FOR OFFICE USE ONLY: Case Nur	mber:			NFORMA	TION REQUESTED	BELOW.	

UNITED STATES DISTRICT COURT, CENTRAL DISTRICT OF CALIFORNIA CIVIL COVER SHEET

VIII(a). IDEN' If yes, list case r		this action been pr	eviously filed in this court a	nd dismissed, remanded or closed? ☑ No □ Yes	
VIII(b). RELA If yes, list case r		any cases been pre	viously filed in this court th	at are related to the present case? ☑ No ☐ Yes	
Civil cases are deemed related if a previously filed case and the present case: (Check all boxes that apply)				lly related or similar questions of law and fact; or	
IX. VENUE: (When completing the	following informat	ion, use an additional sheet i	if necessary.)	
(a) List the Co ☐ Check here	ounty in this District; C e if the government, its	California County o s agencies or emplo	utside of this District; State yees is a named plaintiff. It	if other than California; or Foreign Country, in which EACH named plaintiff resides. f this box is checked, go to item (b).	
County in this District:*				California County outside of this District; State, if other than California; or Foreign Country	
				Plaintiff: Genetec - a Canadian Corporation	
(b) List the County in this District; California County outside of this District; State if other than California; or Foreign Country, in which EACH named defendant resides. Check here if the government, its agencies or employees is a named defendant. If this box is checked, go to item (c).					
County in this District:*				California County outside of this District; State, if other than California; or Foreign Country	
Defendant: James Simon - Los Angeles County					
			utside of this District; State	if other than California; or Foreign Country, in which EACH claim arose.	
County in this District:*				California County outside of this District; State, if other than California; or Foreign Country	
			·		
			entura, Santa Barbara, or tract of land involved	San Luis Obispo Counties	
X. SIGNATURE OF ATTORNEY (OR PRO PER):			Illy	Date February 24, 2011	
or other par	pers as required by law	. This form, approv	ved by the Judicial Conferen	irmation contained herein neither replace nor supplement the filing and service of pleadings ce of the United States in September 1974, is required pursuant to Local Rule 3-1 is not filed ating the civil docket sheet. (For more detailed instructions, see separate instructions sheet.)	
Key to Statistica	al codes relating to Soc	cial Security Cases:			
N	ature of Suit Code	Abbreviation	Substantive Statement of	of Cause of Action	
86	61	HIA	All claims for health insu Also, include claims by h program. (42 U.S.C. 193	rrance benefits (Medicare) under Title 18, Part A, of the Social Security Act, as amended. iospitals, skilled nursing facilities, etc., for certification as providers of services under the (5FF(b))	
86	62	BL	All claims for "Black Lui (30 U.S.C. 923)	ng" benefits under Title 4, Part B, of the Federal Coal Mine Health and Safety Act of 1969.	
. 86	63	· DIWC	All claims filed by insured workers for disability insurance benefits under Title 2 of the Social Security Act, as amended; plus all claims filed for child's insurance benefits based on disability. (42 U.S.C. 405(g))		
86	63	DIWW All claims filed for widows or widowers insurance benefits based on disability under Title 2 of the Social Security Act, as amended. (42 U.S.C. 405(g))			
86	64	SSID	All claims for supplemen Act, as amended.	tal security income payments based upon disability filed under Title 16 of the Social Security	
86	65	RSI	All claims for retirement U.S.C. (g))	(old age) and survivors benefits under Title 2 of the Social Security Act, as amended. (42	

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